

CALL FOR GRANT APPLICATIONS (AE2020-0131)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the INESC TEC LA funded by National Funds through FCT - Portuguese Foundation for Science and Technology, I.P., project (reference UIDB/50014/2020)

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE

Scientific subarea:

Grant duration: 3 months, starting on 2020-10-06 with the possibility of being renewed for a maximum term of one year, in cases where the grant has been awarded to students who are enrolled in non-award courses, or up to two years, in the cases of students enrolled in a master's degree.

Scientific advisor: João Paulo Cunha

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 798,00, according to the table of monthly maintenance stipend for FCT grants, paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the Regulations for Grants of INESC TEC and Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

Costs attributable to INESC TEC may include registration, enrolment or tuition fee stipend, either directly or through reimbursement, during the grant duration.

The grant holder will benefit from health insurance, supported by INESC TEC.

2. OBJECTIVES:

INESC TEC and Centro Hospitalar de São João are Pioneers in an epileptic patient monitoring system that combines real-time 3D video monitoring, surface physiological and intracranial signals, as well as the measurement of potential local (LFPs) from deep areas of the brain using Medtronic's innovative neurostimulator. This work will focus on the study of these new data, with a special focus on the signs of LFPs in the analysis and characterization of epileptic seizures.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The main objective is to study this new system and start the development of new methodologies and tools for analyzing these data based on signal processing and machine learning techniques. Experience in Matlab and biomedical signal processing and analysis is of great importance for the realization of this work, as well as interest in carrying out the Master's thesis in this area.

4. REQUIRED PROFILE:

Admission requirements:

The main objective is to study this new system and start the development of new methodologies and tools for analyzing these data based on signal processing and machine learning techniques. Experience in Matlab and biomedical signal processing and analysis is of great importance for the realization of this work, as well as interest in carrying out the Master's thesis in this area.

The awarding of the fellowship is dependent on the applicants' enrolment in study cycle or non-award courses of Higher Education Institutions.

Preference factors:

Knowledge in Matlab and data analysis related to human physiology. Interest in carrying out the Master's thesis at INESC TEC in this area.

Minimum requirements:

Biomedical Engineering or similar areas related to data analysis and / or signal processing.

Minimum requirements: Knowledge of Matlab, biomedical signal processing and basic machine learning techniques.

5. EVALUATION OF APPLICATIONS AND SELECTION PROCESS:

Selection criteria and corresponding valuation: the first phase comprises the Academic Evaluation (AC), based on the criteria referred to in Article 12 of the Regulations for Grants of INESC TEC, while the second phase comprehends the Individual Interview (EI). All factors are evaluated on a scale of 0 to 100, taking into account the applicants' merit, suitability and conformity with the preference factors.

The weight of the AC factors are as follows: Academic Qualifications (FA, 30%), Scientific Publications (PC, 10%), Experience (EX, 30%) and Motivation Letter (CM, 30%).

Candidates who score less than 50 points in the AC average will be considered excluded on absolute merit. The top five candidates approved on absolute merit will be qualified for the individual interview. The Final Grade (CF) is obtained by the weighted average of AC (60%) and EI (40%).

The Selection Jury is composed of the following members:

President of the Jury: João Paulo Cunha

Full member: Miguel Coimbra

Full member: Susana Cristina Rodrigues

Substitute member:

Release of results and prior hearing: the results of the selection process, as well as the terms and procedures for prior hearing, will be released to the applicants by email, under the terms referred to in Article 13 of the Regulations for Studentships and Fellowships of INESC TEC.

6. FORMALISATION OF APPLICATIONS:

Application Documents:

1. Motivation letter;
2. Curriculum Vitae (must include the list of previous fellowships, their type, beginning and end dates, funding entities and host institutions);
3. Certificate or diploma degree duly recognised in Portugal;
 - Documents proving the awarding of academic degrees and diplomas, or the according recognition - in cases of academic degrees or diplomas granted by a foreign higher education institution - can be dismissed in the application process, and replaced by the applicant's declaration of honour, with the verification of said condition taking place during the grant's hiring stage.
4. Proof of enrollment in a degree awarding study cycle or in a non degree awarding Higher Education program.
 - The proof of enrollment may be presented just during the grant hiring stage.
5. Signed declaration stating the infringement of the grant holder's duties (article 14, no. 4)
6. Documental evidence to support the country of residence, residence permit or other legally equivalent document, in cases where the applicant is a foreigner or non-resident in Portugal - valid until the beginning of the grant.
7. Other supporting documents relevant to the final assessment.

Failure to deliver the required documents within the 90-day period after the date of the notice of the conditional awarding of the grant implies its cancellation.

Application period: From 2020-08-17 to 2020-09-21

Submission of applications: the application will be formalised by submitting the form available in the *Work With Us* section of INESC TEC website.

7. BINDING LEGISLATION AND REGULATION

The hiring process shall comply with the current legislation regarding the Research Grant Holder Statute, approved by Law no. 40/2004 of August 18, in its current wording, as well as by the Regulations for Grants of INESC TEC and for [FCT Grants Regulation in force](#).

For more information, please check the Regulations for Grants of INESC TEC and relevant annexes at www.inesctec.pt/bolsas

